

Final Work Plan - California Regional PM10/PM2.5 Air Quality Study Ammonia Emissions Improvement Projects in Support of CRPAQS Aerosol Modeling and Data Analyses: Draft Ammonia Inventory Development (page 2-14)

Composting

The ENVIRON team has reviewed the Solid Waste Information System (SWIS) Database of the California Integrated Waste Management Board to determine the extent of current composting operations in the San Joaquin Valley and throughout the State. The database includes almost 200 composting facilities statewide. The database does not contain the relevant activity data, amount of waste composted, to develop ammonia emissions estimates for significant portion of these facilities. The ENVIRON team will use activity data from the database, if available, and will contact facilities within the study area to obtain activity data for those facilities for which data is lacking in the database. The emission factors developed by ATC (2000) from source test results from facilities composting several different waste types will be used to estimate emissions

Composting emissions will be allocated as point sources based on the latitude/longitude information from the SWIS database. Ammonia emissions information from composting operations is insufficient to develop a temporal profile for this source.

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Composting activity has increased in recent years due to the need to divert wastes from municipal landfills. As shown in this study and the recent SCAQMD inventory, composting activities are important contributors to regional ammonia inventories. Further work is needed in characterizing this category, as well as related source categories. For instance, sludge drying appears to be the most important source of ammonia at POTWs. However, some facilities do not perform this activity and send their sludge to composting operations or municipal landfills. A better understanding of sludge handling at POTWs is therefore needed. Also, another related source category is landfills. While ammonia is not thought to be a significant constituent of landfill gas, emissions may be occurring at sites where sewage sludge or green waste is being used as daily cover or is being composted. Measurements of ammonia at landfills with these operations is recommended.